

IT IS CLAIMED:

1. A method of analyzing one or more molecular components in a mixture of components, comprising
5 separating a mixture of components using a capillary liquid chromatography column,
monitoring the column eluate to detect the presence of separated components in the eluate,
depositing component-containing eluate from the column
10 as a series of discrete, defined-volume microdrops, along a region of a collection layer, and
analyzing one or more component(s) collected in the collection layer.

15 2. The method of claim 1, wherein the collection layer is immobile during said depositing, and said depositing includes reciprocating a deposition head, for depositing said eluate on the collection layer, toward and away from a position of contact with the collection layer while the
20 deposition head is moved laterally relative to the collection layer.

3. The method of claim 2, wherein the deposition head is moved laterally over the collection layer in a linear
25 direction.

4. The method of claim 1, wherein said depositing includes reciprocating a deposition head, for depositing said eluate, toward and away from a position of contact with the
30 collection layer while the collection layer is moved laterally relative to the deposition head.

5. A method of collecting one or more molecular components derived from a mixture of components, comprising
35 separating a mixture of components using a capillary liquid chromatography column,

monitoring the column eluate to detect the presence of separated components in the eluate, and

depositing component-containing eluate from the column as a series of discrete, defined-volume microdrops, along a
5 region of a collection layer.

6. The method of claim 5, wherein the collection layer is immobile during said depositing, and said depositing includes reciprocating a deposition head, for depositing said
10 eluate on the collection layer, toward and away from a position of contact with the collection layer while the deposition head is moved laterally relative to the collection layer.

15 7. The method of claim 6, wherein the deposition head is moved laterally over the collection layer in a linear direction.

20 8. The method of claim 5, wherein said depositing includes reciprocating a deposition head, for depositing said eluate, toward and away from a position of contact with the collection layer while the collection layer is moved laterally relative to the deposition head.

25 9. A blotting apparatus for collecting one or more molecular components derived from a mixture of components, comprising
an adsorbent collection layer, and
means for depositing component-containing eluate from a
30 capillary liquid chromatography column as a series of discrete, defined-volume microdrops, along a region of the adsorbent collection layer.

35 10. The apparatus of claim 9, further including means for monitoring eluate from a capillary liquid chromatography column to detect the presence of separated components in the

eluate, and a control unit operatively connecting the monitoring and depositing means for controlling the flow rate and volume of deposited microdrops.

5 11. The apparatus of claim 9, wherein the collection layer is immobile, and said depositing means include a deposition head, for depositing said eluate on the collection layer, capable of reciprocating toward and away from a position of contact with the collection layer while the
10 deposition head is moved laterally relative to the collection layer.

 12. The apparatus of claim 9, wherein said depositing means includes (i) a deposition head, for depositing column
15 eluate on the collection layer, said deposition head being capable of reciprocating toward and away from a position of contact with the collection layer, and (ii) means for moving said adsorbent layer laterally relative to the deposition head.

20 13. A system for analyzing one or more molecular components in a mixture of components, comprising
 a capillary liquid chromatography column,
 means supplying liquid to the column at a selected flow
25 rate,

 means for monitoring the column eluate to detect the presence of separated components in the eluate,
 means for depositing component-containing eluate from the column as a series of discrete, defined-volume micro-
30 drops, along a region of an adsorbent collection layer, and
 a control unit operatively connecting the monitoring and depositing means for controlling the flow rate and volume of deposited microdrops.

35 14. The system of claim 13, wherein said depositing means includes (i) a stage adapted to support such an adsor-

bent collection layer, (ii) a deposition head operable to reciprocate toward and away from a position of contact with a collection layer carried on the stage, and (iii) means for moving the stage and head laterally with respect to one
5 another.

15. The system of claim 14, wherein said stage is effective to hold the collection layer immobile, and said depositing means includes means for moving said deposition
10 head laterally with respect to the collection layer.

16. The system of claim 14, further including means for moving said stage laterally with respect to said deposition head.
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17. The system of claim 13, wherein the control means is operable to change the deposition rate and microdrop deposition volume in response to different peak patterns detected by said monitoring means.
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